National Institute of Environmental Health Sciences

Climate variability and child height in rural Mexico

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Abstract:

We examine the impacts of weather shocks, defined as rainfall or growing degree days, a cumulative measure of temperature, more than a standard deviation from their respective long run mean, on the stature of children between 12 and 47 months of age in Mexico. We find that after a positive rainfall shock children are shorter regardless of their region or altitude. Negative temperature shocks have a negative impact on height in the central and southern parts of the country as well as in higher altitudes. Although on average there are no statistically significant impacts from positive temperature shocks, certain sub-populations - namely boys, children between 12 and 23 months at the time of measurement, and children of less educated mothers - in some of the regions are negatively impacted. The results also suggest that potentially both agricultural income and communicable disease prevalence contribute to the effects.

Source: http://dx.doi.org/10.1016/j.ehb.2011.06.001

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Precipitation, Temperature

Temperature: Extreme Cold, Extreme Heat, Fluctuations

Geographic Feature:

resource focuses on specific type of geography

Rural

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Non-U.S. North America

Health Impact:

specification of health effect or disease related to climate change exposure

Developmental Effect

Developmental Effect: Other Functional Deficit

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern: ☑

populations at particular risk or vulnerability to climate change impacts

Children, Low Socioeconomic Status

Resource Type: ☑

format or standard characteristic of resource

Research Article

Timescale: ☑

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content